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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,454	03/20/2001	Sigurd Wagner	A0770/7037 GSE	3276
23483	7590	09/14/2004	EXAMINER	
WILMER CUTLER PICKERING HALE AND DORR LLP			TRAN, MINH LOAN	
60 STATE STREET			ART UNIT	
BOSTON, MA 02109			PAPER NUMBER	

2826

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/813,454

Applicant(s)

WAGNER ET AL.

Examiner

Minh-Loan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-33, 39-58 and 64-66 is/are pending in the application.
- 4a) Of the above claim(s) 9-18, 25-33 and 39-42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-8 and 19-24 is/are allowed.
- 6) ☒ Claim(s) 47-51, 54-58, 65 and 66 is/are rejected.
- 7) ☒ Claim(s) 43-46, 52, 53, 64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings filed on 06/11/2004 are acceptable.

### *Claim Objections*

2. Claims 43-46, 52, 53, 64 are objected to because of the following informalities:

In claim 43, line 11, “ the second transparent conductor” should be changed to

– the second **semitransparent** conductor—for clarity.

In claim 44, line 2, “ the second transparent conductor” should be changed to

– the second **semitransparent** conductor—for clarity.

In claim 45, lines 3 and 4, “ transparent” (first and second occurrences) should be changed to – **semitransparent**—for clarity.

In claim 46, line 2, “ transparent” should be changed to – **semitransparent**—for clarity.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 47-51, 56-58, 65, 66 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification and the drawings do not disclose the first transparent conductor extends partly over the passivation layer as recited in claim 47. Note that only conductor 902 that contacts the first transparent conductor 105 extends over the passivation layer as shown in figure 9.

The specification and the drawings do not disclose the first conductive layer electrically contacts a bottom surface of the PIN diode leaving unobstructed a portion of the bottom surface directly opposite the aperture as recited in claim 56. Note that figures 12 and 13 show the first conductive layer 105 electrically contacts a bottom surface of the PIN diode and it covers entire PIN aperture. Only the bottom contact ring 1202 leaves unobstructed portion of the bottom surface directly opposite the aperture.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 48 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 48, lines 1 and 2, “ the second conductor contacts the second transparent conductor through a hole defined in the passivation layer” is unclear as to it’ s inconsistent with the independent claim 1 which recites a passivation layer defining an aperture and exposing a part of the second transparent conductor for contact thereto.

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton et al. (EP-899,836).

Figure 2 of Thornton et al. shows a method of monitoring an optical beam B<sub>2</sub>

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comprising a PIN photodetector 72 integrated with a VCSEL light source 52 wherein the PIN photodetector 72 is semitransparent to the optical beam B<sub>2</sub> and allowing the optical beam B<sub>2</sub> to pass through the PIN photodetector 72; measuring an output of the photodetector 72 by measuring the bias between the PIN photodetector electrodes 76 and 84. Note figure 2 and paragraphs [0004] and [0043] of Thornton et al.

Thornton et al. does not disclose the PIN photodetector is interposed between the light source and the light receiver. However, it would have been obvious to one of ordinary skill in the art to dispose the PIN photodetector between the light source and the light receiver, because such structure is conventional in the art for monitoring the power of the optical beam emitted by the VCSEL light source. Note paragraph [004] of Thornton et al. is cited to support for the well known position.

*Allowable Subject Matter*

6. Claims 4-8, 19-24 are allowed.

7. This application contains claims 9-18, 25-33, 39-42 drawn to an invention nonelected without traverse in Paper filed on 10/29/2003. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

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*Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Loan T. Tran whose telephone number is (571) 272-1922. The examiner can normally be reached on Monday-Friday 9:00 AM-5:30 PM.

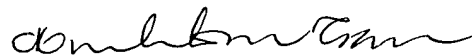
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mlt



Minh-Loan T. Tran

Primary Examiner

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